BUSINESS PARTNERSHIPS PLATFORM

Australian Government

Australian Infrastructure Financing Facility for the Pacific

Solar power strengthening healthcare and water access in remote Timor-Leste

Timor-Leste

August 2024 to April 2026

PARTNERS

MASTER ELECTRICIANS AUSTRALIA

MASTER ELECTRICIANS AUSTRALIA POWER UP

Australian Government

FUNDING

DFAT	Partners	TOTAL
$204,016	$324,885	$528,901

Overview

Through the Australian Government's Business Partnerships Platform (BPP), Master Electricians Australia (MEA) Power Up partnered with communities and institutions in Timor-Leste to deliver off-grid renewable energy systems supporting healthcare and water access in the remote communities of Gala, Holpilat and Maucatar.

In Timor-Leste, community health clinics provide critical services in rural and remote areas, but many lack reliable electricity. Where grid connections exist, remote locations mean poor power quality and intermittent supply, limiting the ability of clinics to operate effectively.

The project addressed this by installing solar-powered systems for medical clinics, diagnostic laboratories and community water infrastructure, improving access to reliable electricity, clean water and essential services for almost 12,000 people. It also strengthened community capacity through entrepreneurship training, local maintenance support and women-led enterprise development.

Highlights

- **11,947 people**, including around **5,975 women** benefiting from the project
- Approximately **15,000 litres** of clean water supplied to Holpilat communities each day because of the new solar water system
- More than **50 people**, including **40 women**, participated in entrepreneurship and sustainability training.
- Estimated **12,000 litres** of diesel saved per year by transitioning to solar-powered systems
- **42 women** formed the “Feto Hasolok Maucatar” weaving collective, leveraging local skills to generate income.

Delivery snapshot

- Fully operational off-grid renewable energy systems delivered across three remote communities, powering medical clinics, vaccine refrigeration, laboratory diagnostics and community water infrastructure:
  - 4.9kW solar PV and 22.8kWh battery storage at Gala Clinic.
  - 6.65kW solar PV and 22.8kWh battery storage at Maucatar Laboratory.
  - 5.5kW solar PV water system at Holpilat.
- Remote monitoring systems introduced to support long-term system reliability and maintenance.

Impact

Improved access

Reliable solar energy is strengthening health service delivery and water access across three remote communities.

- Health clinics and medical laboratories now powered by dependable off-grid solar electricity
- Vaccine refrigeration and medical supply storage strengthened through reliable energy access
- Clean water restored for hundreds of people in Gala and Holpilat, with community members no longer walking long distances daily for collection
- Around 15,000 litres of clean water supplied to Holpilat communities each day
- Improved energy and water access supporting safety and community wellbeing.

Inclusive impact

The project prioritised inclusion, with women, children, older people and people with disabilities all benefiting from improved healthcare and water access.

- Women-only entrepreneurship training increased participation and confidence, exceeding original gender targets
- 42 women formed the "Feto Hasolok Maucatar" weaving collective, generating local income through traditional skills
- Reduced water collection burdens freeing time for education, caregiving and livelihoods
- Improved healthcare and water access delivering broad benefits across all community members.

Sustainability and scale

The project embeds local ownership and technical capacity, demonstrating a replicable model for remote community energy access.

- Community members trained in system monitoring and maintenance, supported by manuals in Tetun and English
- Remote monitoring technology enabling ongoing technical oversight and troubleshooting
- Entrepreneurship, social enterprise and financing models explored to support long-term maintenance.
- Government and local institution partnerships strengthening long-term sustainability
- Delivery model demonstrating strong potential for replication across remote communities in Timor-Leste and the Pacific.

Notes from the field

Delivering renewable energy systems to remote communities in Timor-Leste required overcoming significant logistical and environmental challenges. In Holpilat, all equipment for the solar water pumping system was transported by hand over approximately one kilometre due to limited site access. Seasonal weather conditions, remote terrain and limited communications infrastructure required adaptive project planning and close collaboration with local communities and stakeholders throughout implementation.

> We express our heartfelt gratitude to our generous donors for supporting the establishment of off-grid systems in our laboratory and dental clinic. Your contribution has brought healing, dignity, and hope to communities that previously had limited or no access to reliable healthcare.
>
> **Teresa Orsini Maternity Clinic**, Off-Grid Laboratory and Dental Clinic Services

> Before this clinic had solar power, we were often sent home because there was no electricity. Now, I received my dental treatment without delay. I am very grateful.
>
> **Alice**, local resident

What's next

Building on the project's success, MEA Power Up and local partners are continuing discussions with government agencies and development stakeholders to explore opportunities for scaling similar off-grid renewable energy solutions across Timor-Leste.

Future efforts will focus on strengthening local enterprise development, expanding technical training and identifying sustainable financing models to support long-term operations and maintenance of renewable energy infrastructure in remote communities.

About the Off-Grid Renewable Energy Partnerships

The Off-Grid Renewable Energy Partnerships are part of the Australian Government's Pacific Climate Infrastructure Financing Partnership (PCIFP), expanding the Australian Infrastructure Financing Facility for the Pacific's (AIFFP) climate investments to deliver renewable energy in remote and rural communities across the Pacific and Timor-Leste. They are pilots for REnew Pacific, AIFFP's $75 million investment to scale off-grid renewable energy across the region.

Find out more